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Anti-Prion Protein (Ser-43), Phosphospecific Antibody

Catalog # AN1919

Product Information

Application	WB
Primary Accession	P04156
Host	Rabbit
Clonality	Rabbit Polyclonal
Isotype	IgG
Calculated MW	27661

Additional Information

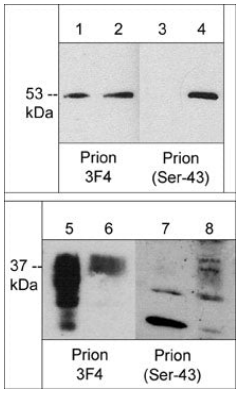
Gene ID	5621
Other Names	PrP, PrPsc, PrPc
Dilution	WB~~1:1000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Anti-Prion Protein (Ser-43), Phosphospecific Antibody is for research use only and not for use in diagnostic or therapeutic procedures.
Shipping	Blue Ice

Background

Prion related neurodegenerative diseases, called transmissible spongiform encephalopathies, are observed in many animal species. These diseases involve conversion of normal cellular prion protein (PrPc) into a form that is insoluble and resistant to proteases (PrPSc). The protease resistant form can polymerize into fibrils which accumulate in infected tissues and cause cell death and tissue damage. PrPs have an N-terminal signal sequence and a C-terminal linkage to glycosylphosphatidylinositol anchor. The mature protein is a glycosylated protein that associates with cell membranes. Phosphorylation of PrPC at Ser-43 by Cdk5 promotes proteinase K resistance, prion aggregation, and fibril formation in vitro. In addition, Ser-43 phosphorylation is upregulated in scrapie-infected mouse brain relative to controls. Thus, phosphorylation of Ser-43 may be an important mechanism leading conversion of PrPc to PrPSc and the onset of disease.

Images

Western blot of GST recombinant human full-length prion protein that was untreated (lanes 1 and 3) or phosphorylated with Cdk5/p25 (lanes 2 & 4). Endogenous prion phosphorylation was examined in human PC3 cells untreated (lanes 5 & 7) or treated with Calyculin A (100 nM) for 30 min (lanes 6 & 8). The blots were probed with



anti-Prion protein (3F4) (lanes 1, 2, 5, & 6) or anti-Prion protein (Ser-43) (lanes 3, 4, 7, & 8).